

Appl. No.: 10/072,509
Amdt. dated August 1, 2003
Reply to Office Action of March 3, 2003

Patent
14363-0053

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application. Please amend claims 18, 21, 22, 23, 27, 28, 34, 35, and add new claims 36 and 37 as follows:

Listing of Claims:

1-17 Canceled

18. (Currently Amended) A method of applying an adhesive to a site of application on a tissue work surface, comprising:

providing an applicator configured to apply a multiple component adhesive and suction to the tissue work surface;

controllably applying suction to said tissue work surface from the applicator;

applying an adhesive ~~flow~~ to said tissue work surface from the applicator; and

removing ~~excess adhesive from said work surface~~ materials from the site of application with said suction.

19. (Previously Added) The method of claim 18 wherein said adhesive comprises a multiple component material.

20. (Previously Added) The method of claim 18 wherein said multiple component material is a fibrinogen tissue adhesive.

21. (Previously Added) The method of claim 18 wherein said tissue work surface comprises a mammalian tissue work surface.

22. (Currently Amended) A method of applying an adhesive to a site of application on a tissue work surface, comprising:

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providing an adhesive applicator comprising at least one reservoir to store said adhesive, a dispensing actuator in communication with said at least one reservoir, and a suction actuator in communication with a suction source;

actuating said suction actuator to controllably apply suction to said tissue work surface;

actuating said dispensing actuator to apply a dispensing pressure to said at least one reservoir;

effecting an adhesive flow from the adhesive applicator;

applying said adhesive flow to said work surface;

releasing said dispensing actuator to terminate the application of said dispensing pressure to said at least one reservoir;

terminating said adhesive flow; and

actuating said suction actuator to controllably apply suction to said tissue work surface to remove residual adhesive from materials from the site of application on said tissue work surface.

23. (Currently Amended) The method of claim 22 further comprises comprising:

providing an applicator having at least two reservoirs each containing at least two one adhesive ~~components~~ component;

applying an equal dispensing pressure to each of said at least two reservoirs;

effecting a flow of at least two adhesive components from the reservoirs within the applicator; and

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mixing said ~~at least two~~ components to form a multiple component material within said applicator.

24. (Previously Added) The method of claim 23 wherein said applicator further comprises a mixing tip in communication with each of said at least two reservoirs and said dispensing actuator.

25. (Previously Added) The method of claim 22 further comprising applying said dispensing pressure at discreet intervals.

26. (Previously Added) The method of claim 22 wherein said adhesive is a fibrinogen tissue adhesive.

27. (Previously Added) The method of claim 22 wherein said tissue work surface comprises a mammalian tissue work surface.

28. (Previously Added) A method of applying a multiple component adhesive to a tissue work surface, comprising:

providing an adhesive applicator comprising at least two reservoirs to separately store said adhesive components, a dispensing actuator in communication with said at least two reservoirs, a suction actuator in communication with a suction source, and a mixing tip in communication with said at least two reservoirs;

actuating said dispensing actuator to apply a dispensing pressure to said at least two reservoirs;

effecting a flow of each of said adhesive components within the applicator;

mixing said adhesive components to form a mixed adhesive within the applicator;

applying said mixed adhesive to said tissue work surface;

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releasing said dispensing actuator to terminate the application of said dispensing pressure to said at least two reservoirs;

terminating said flow of each of said adhesive components; and

actuating said suction actuator to controllably apply suction to said tissue work surface to remove ~~residual mixed adhesive~~ excess components from said tissue work surface.

29. (Previously Added) The method of claim 28 wherein said mixing further comprises:

 providing a mixing head comprising a dispensing tip in communication with a mixing channel, said mixing channel in communication with at least two channels in communication with said at least two reservoirs;

receiving each of said adhesive components from said at least two channels in said mixing channel;

mixing said adhesive components to within said mixing channel; and

applying said mixed adhesive from said dispensing tip to said work surface.

30. (Previously Added) The method of claim 29 further comprising providing a suction channel in communication with said suction source.

31. (Previously Added) The method of claim 30 further comprising positioning said suction channel proximate to said dispensing tip.

32. (Previously Added) The method of claim 28 further comprising applying said dispensing pressure at discreet intervals.

33. (Previously Added) The method of claim 28 wherein said adhesive is a fibrinogen tissue adhesive.

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34. (Previously Added) The method of claim 28 wherein said tissue work surface comprises a mammalian tissue.

35. (Previously Added) ~~The~~ A method of applying a multiple component fibrinogen tissue adhesive to a tissue work surface, comprising:

providing an adhesive applicator comprising:

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- a) at least two reservoirs to separately store adhesive components;
 - b) a dispensing actuator in communication with said at least two reservoirs;
 - c) a suction actuator in communication with a suction source; and
 - d) a mixing head in communication with said at least two reservoirs, said mixing head having a dispensing tip in communication with a mixing channel, said mixing channel in communication with at least two channels, said at least two channels in communication with said at least two reservoirs, and a suction channel in communication with said suction source;

actuating said dispensing actuator to apply a dispensing pressure to said at least two reservoirs;

effecting a flow of each of said adhesive components within said at least two channels;

receiving within said mixing channel said flow of said adhesive components from said at least two channels;

mixing said adhesive components within said mixing channel to form a mixed adhesive;

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applying said mixed adhesive from said dispensing tip to said tissue work surface;

releasing said dispensing actuator to terminate the application of said dispensing pressure to said at least two reservoirs;

terminating said flow of each of said adhesive components within said at least two channels; and

actuating said suction actuator to controllably apply suction from said suction channel to said tissue work surface to remove ~~residual mixed adhesive~~ excess adhesive components from said tissue work surface.

36. (New) The method of claim 18 wherein the materials removed from the site of application comprises multiple component adhesive.

37. (New) The method of claim 35 wherein the suction channel is configured so as not to interfere visually or functionally with application of the adhesive.